

Prognostic value of the influence of anemia on heart failure

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Dear Editor: The article by Guevara et al. contains an interesting analysis of the pathophysiological relationship between hemoglobin deficiency and heart failure (HF). It mentions that despite the numerous studies on the influence of anemia on HF-related morbidity and mortality, there is no consensus on the prognostic value of this disease on HF ⁽¹⁾. However, several studies address the prognostic value of the influence of anemia on HF, which we would like to reference.

The study developed by Bichara et al. demonstrated the risk of death from chronic HF in patients with anemia, specifically in patients with systolic HF, with a 3 % increase in death related to hematocrit levels. Nonetheless, it remains uncertainty as to whether the relationship between these two pathological conditions is causal or merely a risk factor. It should be noted that, in patients with anemia, a hemoglobin (Hb) value < 13 g/dL is a direct predictor of HF and can involve multiple pathophysiological factors—among which the most important is to transport oxygen to target organs, including the heart and kidneys—covertly related to renal failure, thus worsening the clinical presentation in hospitalized patients. In addition to this, there are secondary factors such as ejection fraction and chronic kidney disease (CKD), considered as indirect indicators of HF that lead to a less favorable prognosis ⁽²⁾.

Furthermore, García et al. conducted a study to analyze the etiology of anemia in HF, particularly to assess the importance of the prognostic value for anemia regarding HF. They analyzed a group of medical records from 272 patients with Hb < 12 g/dL and found that 39.9 % of the patients admitted for HF had anemia. It was also observed that this could be associated with older adults from 82.1 ± 9 years of age and multiple other factors, such as ischemic heart disease (15 %), hypertensive heart disease (34 %), valvular heart disease (14 %) and hospital readmissions. However, in concurrent studies, anemia and patients with HF have been linked to the role of erythropoietin in CKD, with a mortality rate prognosis of 15 % ⁽³⁾.

On the other hand, in their study, Sánchez et al. reported that anemia was associated with high rates of cardiac mortality, particularly in female patients (65.7 %) and older patients (74 ± 2 years). Observational studies and a multivariate analysis revealed the occurrence of anemia as a condition with a poorer prognosis for patients with HF. Anemia was identified as a predictor of mortality (19.89/100), and each gram decrease in Hb increases the risk of death by up to 20.5 % ⁽⁴⁾.

In conclusion, there is a prognostic value of mortality for patients with anemia who present with HF; the analyzed studies determined that this mortality rate exceeds 3 % and is related to the severity of anemia. Therefore, it is possible to state that there are prognostic factors, such as morbidity and mortality of HF in these cases. Likewise, other factors such as age should be considered, as well as other comorbidities that could introduce biases in the bivariate analysis of this prognostic relationship.

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